

Journal of University Teaching & Learning Practice

Volume 15 | Issue 5 Article 7

2018

Engaging students in co-creation of sociological knowledge and curriculum design as a form of deep engagement

Paulina Billett La Trobe University, p.billett@latrobe.edu.au

Dona Martin
La Trobe University, d.martin@latrobe.edu.au

Follow this and additional works at: https://ro.uow.edu.au/jutlp

Recommended Citation

Billett, Paulina and Martin, Dona, Engaging students in co-creation of sociological knowledge and curriculum design as a form of deep engagement, *Journal of University Teaching & Learning Practice*, 15(5), 2018.

Available at:https://ro.uow.edu.au/jutlp/vol15/iss5/7

 $Research\ Online\ is\ the\ open\ access\ institutional\ repository\ for\ the\ University\ of\ Wollongong.\ For\ further\ information\ contact\ the\ UOW\ Library:\ research-pubs@uow.edu.au$

Engaging students in co-creation of sociological knowledge and curriculum design as a form of deep engagement

Abstract

This article is based on the findings of a three-year study on the outcomes of involving students in the cocreation of knowledge and pedagogical design, 2014, 2015, 2016. It involves three cohorts of second year Sociology students at an Australian University. Data came from recording engagement in class discussion, completion of set reading material, performance in assignments as well as student and lecturer perceptions of overall levels of engagement. Findings demonstrate ways in which co-creation of knowledge and curriculum design assisted students to engage more deeply in the learning process. Authors posit that co-production of knowledge and shared curriculum development aid in promoting deeper teaching and learning practices.

Keywords

co-creation, curriculum design, student engagement

Introduction

This project examines a strategy aimed at lifting student engagement and encouraging a deeper understanding of content in a second-year elective sociology subject, by inviting participant student input into the process of subject content and delivery. The subject examines the place and position of young people in society from a sociological perspective. It explores what it means to be a "citizen", the benefits and drawbacks of youth social capital, how and why young people create subcultures and the role of youth policy in young people's lives. This subject also examines social issues such as changing family dynamics, education, employment, technology, homelessness and youth development.

Each year we have a diverse cohort of students. As the subject is both an elective and a regional campus offering, students come from many disciplines across many courses. It is therefore easier to talk about commonalities rather than unique traits. Most of the cohorts come from the college of Arts, Social Sciences and Commerce [ASSC] rather than the college of Science, Health and Engineering [SHE]. They are mostly second-year students, although some are third-year; some students travel from Melbourne or smaller regional campuses.

During the time of the study enrolments fluctuated widely: 32 in 2014, 52 in 2015 and 14 in 2016. This related primarily to circumstances associated with both a course redevelopment and a university restructure program. In 2014 our university underwent one of its largest restructures. To cope with the closure of many courses and subjects, the 2015 cohort was quite large. The closure/restructure affected delivery options, with the 2015 offering becoming blended delivery: a one-hour lecture online supported a two-hour face-to-face tutorial for six weeks. Hence, the usual 12 week structure was reduced so what was normally provided on odd weeks 1, 3, 5, ... were offered in a.m. sessions and even week material 2, 4, 6, ..., offered in p.m. sessions. In 2016 classes returned to a 12-week offering, but due to significant enrolment issues, student numbers were very low, an unintended problem rectified for the 2017 cohort.

We were challenged by changes in learning theory, which now recognises that students today are more expectant of teaching and learning opportunities that see the acquisition of knowledge as being built via a partnership model. We were also challenged by market forces that drive tertiary institutions to attract, support and graduate larger and more diverse student cohorts, including low socio-economic, first-in family, mature-age and international students (Biggs & Tang 2011; Warren 2002; Fogarty & Taylor 1997). To this end, we aligned our work pedagogically with educators who deem high-quality learning to be a result of the interplay between a student's level of interest and motivation, the design of the curriculum and the teacher's approach to teaching¹, such as Biggs and Tang (2011) and Meyers and Nulty (2009), on deep or surface learning. We agreed that learning requiring students to actively participate through critical engagement with new ideas would lead to better understanding and application of concepts and valuable opportunities for students to link prior knowledge with new experiences.

In working with the idea that students must engage in episodes of deep learning to get the maximum from their studies (Biggs & Tang 2011; Trigwell et al. 1999), and with an awareness that learning enjoyment is a strong motivating factor (Ferris & Gerber 1996; Biggs & Tang 2011), we considered that we had a clear platform for pedagogical redesign. Our task therefore focused on determining appropriate practices: those that were interesting and adequately challenging, led to deeper learning and gave opportunity to assess levels of student engagement.

Within the pre-determined structure of multiple layers of quality-assurance measures, we used

l

While student motivation is acknowledged as an important instigator for learning, its discussion falls outside the scope of this paper.

constructively aligned content to provide students the opportunity to give input to and affect curriculum and delivery design. We used as our basic design the concept of the co-creation of knowledge, which we embraced for its capacity to focus attention on practical skills and for the opportunity it provided users to recognise their own relevance. We accepted the accompanying challenges to create a dialogue of teaching and learning, to share different views and ideas on what should be happening in tutorials, to create opportunities for participants to learn and hone critical listening skills, to express different viewpoints and to manage conflict. We listened to the voices of proponents such as Iversen and Pedersen (2017), Mowles, Stacey and Griffin (2008) and Stacey (2007), who advised that it is in these opportunities that new and sometimes unforeseen opportunities emerge. Their research alerted us to challenges that arise from unpacking different perspectives; for example, the emergence of complexities of learning and teaching (Mowles et al. 2008; Stacey 2007). While we were aware of potential changes in classroom dynamics, such as opportunities in class to test a teacher's knowledge on pedagogy, curriculum development and content delivery, as well as to provide a more equitable learner/teacher relationship that could make a teacher feel vulnerable, we found we could not forgo the opportunity to challenge our students out of submissiveness.

Co-production of knowledge and curricula as a method of student engagement

From our own teaching and research, we knew that students who actively engage during class are less bored, find the learning process more rewarding and engage in deeper learning (Martin 2012; Thomas, Martin & Pleasants 2011). We also know that students meaningfully engaged in knowledge and curriculum production develop a feeling of ownership over what they study, and better understand and value outcomes (Martin 2016; Fletcher 2005). We therefore embraced a process that allows teachers and students to act as co-producers of knowledge and provide classroom environments where everyone engages in the dialogue of knowledge creation (Fraser & Bosanquet 2006). We were aware that co-creation of knowledge is part of a larger context of teaching and learning dating back to the work of Dewey, who argued for a "democratic" classroom (Bovill, Morss & Bulley 2009); we were also encouraged by Fletcher's (2008) article "The architecture of ownership", which suggests that there are a number of ways in which students may become active co-producers of knowledge and curriculum. Fletcher's ideas loosely translate to the following five ideas:

- 1. Involvement with textbooks and other reading material
- 2. Connecting curriculum to life goals
- 3. Students aiding in the teaching process
- 4. Students as professional-development partners
- 5. Students as decision-makers.

We surmised that in co-creation environments students are involved in dialogue on what is being studied and how relevant it is and how it is taught and learned, and there is also opportunity for a negotiation of the tools used to assist in this learning.

Methodology

The mixed-method project, Human Research Ethics (2044-14), was undertaken 2014 to 2016 using "evaluation research": research that "is distinctly concerned with what works in policy and practice" (Forrester 2012); in particular, how to achieve intended goals. We assessed outcomes, what did and did not work and what can be improved, and ascertained the impact of co-

production of knowledge on student engagement. Data was collected for the 2014, 2015 and 2016 iterations of the subject. The lecturer-researcher and first named author collected observations during class time and facilitated the focus-group work. While alert to the limitations of first-hand involvement, such as that having the work conducted by an independent researcher/observer could encourage more unrestricted expression of thoughts and views, we argue that we not only interrogated the research literature, but regularly met to discuss findings and consider implications. In short, we prepared the lecturer-researcher to argue her stance against what we considered the most crucial assumptions for qualitative inquiry: that her direct involvement in gathering data in class was powerful, as she understood the very nature of the research, as well as the value of addressing the explicit needs associated with challenging traditional approaches to classwork immediately an opportunity presented itself, and/or to explore these instances during focus-group discussions.

In addition, the lecturer-researcher was well positioned to openly relate activities to the research. She was able to remind students that in leading and gathering data her investigative questions were being applied as an interrogation or an externalising of the research agenda – a way of seeing issues from the students' perspective, as much as a way of concentrating their understanding about what they were involved in. The students therefore were constantly reminded that the research was designed as much to extend their knowledge and their opportunities as to be useful and informative to future offerings of the subject and to a wider research audience. The lecturer-researcher made a strong point of noting that explicit discussions on outcomes were shared as they arose with her research peer in a direct attempt to challenge assumptions and strengthen logic and integrity. It should also be noted that, in line with the Human Research Ethics (2044-14) guidelines, all students were made fully aware of how to register any concerns, seek advice from others and/or remove their particular work from the data-collection process. No student, across the three years, raised any concerns.

Our co-creation environment encouraged students to engage in dialogue on what was being studied, its relevance, how well it was being taught and learned and whether the tools used were the best fit for purpose. Each semester we kept a log of observations that focused attention on the levels of student engagement during class². The observations were scored as an aggregate – high-, medium- or low-level engagement (Figure 1).

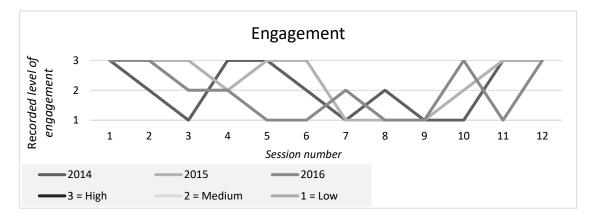


Figure 1: Observations of student engagement in class

3

² This included students' levels of class participation, engagement with readings and attendance.

The first named lecturer-researcher also facilitated the focus groups, as she was well informed on potential difficulties and knew the students well enough to sensitively encourage them to express thoughts and views openly and honestly. They were alert to the aim of the research being to extend their knowledge and opportunities, to inform future student offerings and to inform a wider research audience via publication in a research journal and/or as a research-conference presentation. A collection of student opinions was gathered in focus groups³ via mind-mapping exercises. The collection of opinions was triangulated and used to build informed accounts of student understanding. For example, topics raised during discussions challenged student perceptions of personal and peer levels of engagement, which provided direct comparisons to the lecturer's account of student participation via in-class records and mind-mapping outcomes.

Procedure

Our first hurdle in engaging students in the co-creation of knowledge was connected to administrative discussions with students, such as the necessity to adhere to course and subject design rules and regulations. Pedagogically, we provided students task/assessment options where they could create their own assessment journey according to their interests, and we engaged them in discussions that challenged notions of acceptable classroom participation. During the three years of the study, students were involved in redesign activities relating to group selection of topics/topic content, helped design online delivery and participated in focus groups and mindmapping exercises. An outcome of this involvement was that we were able to translate Fletcher's points in the following ways:

- 1. Involvement with textbooks and other reading material Students contributed to topic development by supporting and contesting topics and issues raised within the reading material and the validity of using these works to stimulate discussion.
- Connecting curriculum to life goals Students selected tasks that best suited their interests.
- 3. Students aiding in the teaching process Students worked with the lecturer to find innovative delivery methods and to review topic selection, assessment activities and assessment design.
- 4. Students as professional-development partners Students were involved in determining the scheduling and content of work and in effecting change.
- 5. Students as decision-makers Group reviews in sessions 6 and 12, involved students in a process of wide and honest discussions on subject content and delivery. Discussion focused on the delivery of subject material as well as on issues relating to tasks completed. Decisions focused on any perceived need for adjustments in delivery of material and covered extra support to ensure student success.

Discussion of findings

This section begins with an overview of the topics covered in each session. Table 1 provides a reference point for specific session discussions and is included to assist in understanding the findings relating to levels of engagement.

³ The use of focus groups may also help to reduce the isolation and powerlessness which some participants can experience, and mitigate, to a degree, the power that the interviewer can assert over a group (Heath et al., 2009; author's name withheld), an important consideration due to the researcher also being the subject coordinator.

Table 1. Session Topics 2014, 2015, 2016

Session	Topic
1	The meaning of youth
2	Youth subcultural theory
3	Post-subcultural theory
4	Youth transitions
5	Health and wellbeing
6	Media and consumption
7	Place and space
8	Online lives
9	Government and social policy
10	Social change and action
11	Citizenship and belonging
12	Recap

In determining the sessions that received the most interest (as shown in Figure 1, which explores levels of engagement), we found that over the course of three years, interest and engagement peaked across the three years in session 1(Meaning of youth) and was at its lowest in session 9 (Government and social policy). We also noted that sessions 2 (Youth subcultural theory) and 4 (Youth transitions) fared second highest in terms of student engagement, while sessions 3 (Post-subcultural theory) and 10 (Social change and action) shared interest levels across all three standards of high, medium and low. Sessions 5 (Health and wellbeing), 6 (Media and consumption) and 11 (Citizenship and belonging) showed the greatest variance, placing either at the top or the bottom range, while sessions 7 (Place and space) and 8 (Online lives) were at either the medium or lower range of engagement.

Our findings are presented in relation to the five categories, as based on the work of Fletcher (2008) above. Student quotes are designated by letters to ensure anonymity, along with the year of engagement to support correlation with figures and tables.

Involvement with textbooks and reading material

We were aware of the importance of the literature we selected, as the readings and other texts tell stories; these stories are not only based on personal interests and knowledge but also designed to shape the direction of work. However well-intentioned and informed this process was, we found that unless we included some degree of following through, we really did not know if students were able to connect this information to personal experience or expectations. Consequently, in each tutorial, we debated the merits of the set reading, triggered by the students bringing to class a personally selected representation of the article's intent – something that connected the reading material to their life-story – and defending it., This could be Focus-group discussion data, backed up by class participation records, was used to indicate how readily students engaged with this work. We found that only in 2014 did students offer a mode of improving pre-reading engagement levels, when the cohort requested that they pre-list the textbook page numbers to ensure that attention was directed to particular issues. The 2014 cohort therefore determined and collated the pages of greatest importance in class. The overall usefulness of future students being directed to specific pages further encouraged the construction of direct links to structured topics/content, which in later years were seen to heighten student engagement.

I actually liked that you made us read the textbook, because, like, this chapter was connected to this week. (a-2014)

Yeah, instead of just giving us the book and saying, "Okay, here is the book. You are on your own now - go and find what's relevant." (b-2014)

I think outlining the pages was really, really good. (c-2014)

When discussing which pages to select and why, we found opportunity to discuss, in context, the foundations of constructive alignment (Biggs & Tang 2011). This allowed students to consider the value of readings that were well aligned with class activities and assessments, as further discussed in categories 3 and 5.

Connecting curriculum to life goals

In considering how to connect the curriculum to life goals, we again note the importance of knowing the student cohort. While the students had widely varying backgrounds, for efficiency purposes our focus here is on two main groupings: students coming into university straight from secondary school and mature-age students. The school-leavers suggested that their biggest challenges were in coming to terms with the standards of work expected, managing their time and having the confidence to speak up in large groups. For example:

I remember we were saying [during the mind0mapping exercise], and, like, I apologise if this offends anyone, but I do feel that older students sometimes have a harsher opinion on something, or quite a strong opinion on something, and I...felt scared to voice up.... I didn't want to get shut down. (d-2014)

Mature-age students usually have complex backgrounds and interrupted pathways to study (Stone & O'Shea 2013; Walters 2010; Stone 2008; Abbott-Chapman et al. 2004). Their particular challenges include financial pressures and the need to balance work, family and study. Overall, our mature-age students exhibited many of the traits described by Devlin (1996). For example, they tended to be "better" learners, often engaging with study more deeply and succeeding more often than their younger counterparts, and often scoring higher in cognitive as well as affective characteristic tests (for example, the Learning and Study Strategy Inventory). Devlin's work notes that such students are strong in terms of their ability to manage their time and to understand and engage with topics, and they demonstrate higher motivation to study. Thus, mature-age students provide a motivated cohort that can be less labour-intensive and time-consuming to teach than their school-leaving and international counterparts. These characteristics were evident with the students in our study, with the mature-age learners consistently demonstrating better preparedness for class, engaging well in class discussions and achieving strong results in overall subject assessments.

Overall, in terms of relating curriculum to life goals, the researchers were aware that opportunities to talk through issues encouraged formation of a crucial link: the "why" of a lesson. To encourage discussion, small groups of students of mixed ages worked together during tutorials. Mixing the ages promoted opportunities to speak out, as many school leavers noted that they felt intimidated by mature-age students, whom they considered to be more knowledgeable and experienced. The data demonstrates that the group discussions encouraged the formation of connections and meanings, which in turn lifted motivation and energy to participate. In addition, small-group work provided an avenue for mature-age students to connect with the school-leavers, and proved an equally effective strategy for helping school-leavers build connections with mature-age students. The mature-age students singled out small-group work as an effective method of learning

engagement. It allowed them opportunity to share their understanding, compare notes, share their experiences and build relationships with younger students, something many felt could not otherwise be achieved.

International students also saw small-group work as playing an important role in their learning. While their experiences differed to those of most school-leavers, as they did not have well-established support mechanisms, they, like school-leavers, felt that small-group work aided their learning. For some, such as e-2014, well-conducted group work provided a chance to voice his opinion in a "safe" environment as well as providing the best opportunity for making new friends and learning:

Well, actually, group work helped me a lot. Also, like presentation time, everyone helping each other, sharing common interest. (e-2014)

Overall, the small-group work supported each cohort, as it often correlated to deeper learning (Azer 2009), as it allowed students to learn from each other, share ideas and reflect on their knowledge. The outcome was roundly supported as useful by all student cohorts.

Students aiding in the teaching process

As the three years progressed, students presented with differing needs, the impact of which on engagement outcomes diminished over time. In 2014, for example, students negotiated and either addressed identified needs for that cohort or signalled needs for explanation or exploration early in the following year. Each year as needs were met, we had to become more creative in finding ways to encourage further co-creation. Following are some examples of this evolution process.

Early in the 2014 semester, students were invited to consider how they felt in terms of student fatigue. As a group we considered ways to alleviate or streamline the workload expected. As discussed under heading 1: Involvement with textbooks and reading materials, the students pinpointed specific pages in the readings that were of greatest significance. In sessions 7 and 10, we trialled full online delivery to reduce attendance pressures (distance to campus is often a major issue regionally). During the semester, we further introduced innovative delivery methods as a means of refocusing the work load by listening to their input into the selection of topics for discussion. Session 12 was set aside for a subject review, where we ended up redesigning some of the assessment. The outcome encouraged an ongoing discussion of a wide range of issues, including blended teaching and learning methods and constructive alignment of content (Biggs & Tang 2011). This process was so useful in directing focus on the co-creation of subject knowledge and in engaging students in subject design and content appreciation that it became an ongoing inclusion in the subject.

As discussed earlier in the introduction, due to unavoidable circumstances, the subject was delivered in 2015 in six-week blocks. The introduction of changes to delivery method and curriculum as proposed by the previous cohort remained, although only one week was allocated to full online delivery. As a direct result of the 2014 focus group work, initiatives, such as small group work continued as did the opportunity for the cohort to select tutorial material i.e. topic content for two of the teaching sessions.

In 2016, targeted reading material and direct student input into topics for discussion were again included as regular components of the subject. The data demonstrates that this cohort again appreciated the opportunity to add to the sessions some uniquely interesting learning topics. They felt that this opportunity helped them relate the work to their own area of study and life circumstances.

After discussions in 2015, there was now an opportunity for the students in the 2016 cohort to engage with "modules" of learning. Each module of work had up to four different topics. The variety gave students the opportunity to select the topics of greatest interest to them; this was often referred to as the "create your own adventure" option. However, 2016 data revealed that support for this work had mixed results: some students were overwhelmed by the level of choice, which resulted in a degree of student disengagement.

I felt like some weeks had nothing there for me, and then I wasn't bothered with it, and others had too much, and I wasn't sure what to choose.... I know it sounds bad, but I think it made me realise that I just want someone to tell me what to, just for the teacher to say, "Okay, this is what you have to learn, now go and learn it." (f-2016)

In contrast, other students found that the options enabled them to tailor the subject to meet their needs and made the subject more interesting:

I actually found the opposite! I loved being able to choose what I wanted to learn. Like, if a topic looked boring and I didn't have to do it, it was, like, phew! (g-2016)

The consensus from session 12 was that while having modules was good, reducing topic options to no more than three in the future would provide flexibility without overwhelming those who wanted more direction.

Another interesting outcome was related to innovative delivery, and students' perceptions of what makes a quality lecture. Due to the 2015 revamp of the subject and a shift to blended learning, all lectures were now delivered in the online environment. Discussions about lecture attendance – which now included viewings – explored causes of student disengagement. Students complained that live recordings of lectures were boring, as they gave no opportunity to engage. Students were missing the opportunity to interact with the lecturer, to ask the lecturer to slow down if necessary or to ask questions, and they missed opportunity to recap information with those around them. Students agreed that what they actually wanted was unachievable: a lecture presented in the traditional face-to-face medium, with the option for them to engage at a time that best suited them. The lecturer agreed to trial different modes of delivery. Outcomes were "traditional" lectures – simply live recorded for playback; voice-over PowerPoint presentations (< 30 minutes); and *Powtoons*, animated video lectures (< 15-20 minutes). The reduced lecture time translated into tutorials being increased to two hours.

It didn't matter that we had online lectures because we had long face-to-face tutorials. And you made us motivated to learn. It made heaps of difference, especially when it was the afternoon tute and you are tired and just want to go home. (n-2015)

From lecture data we found that what we considered our strengths, a depth of subject knowledge and the ability to guide group discussions, were different to what the students valued, which was our ability to actively demonstrate our interest in and passion for the subject:

When you've got a lecturer that is passionate about what they're teaching...I find it a lot easier to come to class, and want to listen, and want to learn. (m-2014)

It...helps when the teacher is motivated, 'cause when you don't like it [the topic], it feels like there is still some sort of positive aspects in what you are learning, and it helps you learn anyway. (d-2014)

I think when the teacher is motivated, it makes you motivated. I hate classes when you can tell the lecturer doesn't want to be there and they can't be bothered. (0-2016)

From the 2015 data, we found that the students considered the "traditional" lectures that were liverecorded for playback and those presented as voice-over PowerPoint presentations to be largely ineffective in helping them learn. However, the third mode, the use of animated cartoons, proved to be highly successful. Many argued that the medium was unique, fun and engaging, and it was easy to rewind and review. Importantly, they knew that the onus of learning was fully on them, as there was no lecturer "visibly" present. As it happened, the cartoon lectures were used to present the more complicated aspects of the subject, such as sociological theory, which often does not clearly convey the connection between theories and the "real world" (Eglitis 2010; Pedersen 2010; Van Auken 2013). The sessions dedicated to sociological theory were usually noted in feedback forums as the sessions students most wished to be removed. The 2014 data demonstrated that students struggled with understanding this theory in sessions 2 and 3; however, in 2015 and 2016, students' engagement and understanding improved.

I really liked them. I found that they were really easy to understand, and I could pause and go back to sections I didn't get. Also, because it was only about one thing, you didn't have to wade through tons of stuff to get what you needed to get. (q-2016)

They helped me understand more. I actually could listen to them and not feel overwhelmed.... I could rewind and watch again. (r-2016)

Yeah, they were to the point. They helped me get the difference between the three schools, which was really hard.... I don't know if I would have got it otherwise. (s-2016)

I really liked the weeks with the cartoons. They were short and to the point, and this was really good for the weeks [such as] post-subcultural theory and stuff. The weeks with long videos just dragged on, and I tried to avoid those topics even if they seemed more relevant to me. (t-2016)

The findings suggest that students engaged more when the information was delivered in short bursts and in a cartoon format. Interestingly, the data also shows that the students did not want more cartoon presentations. The point of difference was something they liked, and they did not want it to become the norm; both the 2015 and the 2016 cohort expressed these opinions.

Students as professional-development partners

To engage students in deep learning, it is important to employ focused approaches to teaching and learning. Approaches that attend to the co-creation of knowledge and curriculum require input from students and academics. Academics need to first consider each particular student cohort in respect of how they teach, what they teach, how appropriate the tools are and how students learn. Academics need to engage students in learning and be open and transparent in their expectations. Through this openness and transparency, they invite collaboration. Within our co-creation discussions around the redesign of activities, we found quality opportunities, in class and in focus-group sessions, to share curriculum design and highlight aligned assessments, teaching and learning activities and intended learning outcomes. For example, in 2014 students completed four online quizzes, a presentation, a reflective essay and a major essay. The data demonstrates that whey they understood how each assessment worked within the context of the subject design, students approached the tasks with more vigour:

No, I definitely understood why we did everything. we went through it before [in the restructuring exercise], and we can pinpoint exactly where we learned it. So no, I think that there was a strong correlation between them. (v-2014)

[My group] thought you could see a nice plan fall into place. (w-2014)

Of course, being able to unpack why activities and assessments were as they were did not mean the assessments were the most appropriate/best fit, and while the overall approach to assessment could be justified, the students still expressed some frustration with tasks such as the presentation and the four online quizzes. At the same time, we found from focus-group discussions that students found an increased sense of value from working alongside their lecturer. They discussed feelings of increased self-worth in sharing their thoughts and experiences about education, and believed they were able to provide quality contributions toward an effective implementation of change. Class conversations were rich, outcomes had positive impacts and the sense of partnership in learning was overwhelmingly positive. Having input into what they were learning was both noted as a motivator and regarded as a mark of respect from their lecturer toward their capacity to contribute. Students valued the opportunity to effect change. They appreciated the opportunity to engage in building the subject to be the best it could be, and believed in the value of their contribution. Both the lecturer and the students gained from the culture of collaborative learning. They shared valuable experiences and worked together to explore new and exciting ways to extend their knowledge. We found that involving students in experiencing new understanding about what knowledge delivery looks and feels like lifts interest and resilience. We found real value in student collaborations, and now argue that students are an underused - and at times undervalued resource in building curriculum and pedagogical approaches.

Students as decision-makers

Here, we purposefully worked with students on areas of concern. For example, in 2015 two of the four quizzes were eliminated (the majority of the 2014 students had argued that those quizzes repeated material covered in the essay). In their place, a semester-long reflective-journal task was incorporated and linked directly to the major essay. In 2015, most students felt that the assignments made sense and were interesting; however, they were not impressed with the journal, feeling that it provided little, if any, help in understanding the content r supporting the major essay and believing it added an unnecessary stressor to their learning experience. Class discussions about what each party valued in the journal encouraged a reconsideration of its usefulness. Together we produced a redesign that ensured that the journal came some way to meeting the needs and expectations of both parties, making it a better tool for reflection and assessment. The exercise of unpacking what a particular assessment task offered both teacher and student became a valuable learning opportunity for the students:

I really enjoyed learning about what I wanted – like in the weeks we chose, I was so into it! It applied to what I am trying to learn about because I want to be a school teacher.... I felt that this stuff would help in my future studies and career (x-2015)

Not all outcomes were as successful. For example, some students in 2015 negotiated to present their work on a platform of their choice, which was a dedicated Facebook page⁴. As it turned, this out provided very poor engagement data. When students returned to class, the low engagement, was raised as a point for discussion. The students felt that their lack of engagement related to the visibility of private lives on this online medium, a ramification no-one had really considered when the choice was made. Ensuing discussions enabled all involved to better understand why the Facebook platform failed to deliver, and elicited clear responses and understanding that a careful selection of tools and their impact on teaching were as important as building the content. In addition, and as noted earlier, providing the opportunity in 2016 for wide task choice in a number of modules was only moderately successful. Some students found that they missed lecturer

⁴ Students were asked in the first week of the seminars to choose a suitable forum for online discussion.

direction, and many realised that they were happiest when the teacher retained a greater level of control over the learning pathways. This outcome directly related to their realising a greater level of regard for, and wanting to trust more in, the academic's knowledge.

Conclusion

The program outcomes have ensured that we will continue to integrate partnerships, building opportunities in future classes. We have found that the partnership opportunities provided in the program extend understanding for everyone involved. In unpacking the curriculum, aligning class work with pedagogical design and linking outcomes to university rules and regulations, students could see subject design from an academic's perspective. The students provided first-hand accounts of their experiences and engaged in work on how to sharpen interest. The class, as a whole, worked together to target areas of low engagement and to improve levels of disengagement.

Applying the co-creation of knowledge and curriculum design offers exciting possibilities in aiding deep engagement, but it may also highlight negative aspects of our classes. Of these, the most salient relate to lecturers' unrealistic expectations of students and the time it takes to work through an issue. Time is needed to address unobtainable targets, as the process of change must be one of negotiation. Negotiating what is acceptable and achievable, what fits with good pedagogy and what presents subject material in a valued form is at times at odds with students' desire to eliminate content (usually theoretical in nature), which may not be easily accommodated. At times, some students' wishes may be subsumed by the voices of stronger, more vocal students, or some students' feelings may be hurt by a belief that an idea was rejected without due consideration. Yet, it is in these very discussions that everyone has the opportunity to build group work skills; it is here that people learn to value the voices of others and to value the art of critically listening.

These points highlight the most pressing issue in adopting co-creation of knowledge: time. Without due consideration, the time commitment needed for co-creation discussions can take longer than can be realistically dedicated to a subject. It is a process of evolution that needs to be well considered. For example, allowing students to set topics for a number of sessions or evaluate and recreate assignments on a yearly basis may mean the need to re-evaluate entire teaching materials every year, and if co-creation is in fact being attempted in more than one subject, it may become an onerous task. However, as we now better understand the implications, we can confidently say that like all good learning opportunities, the process will develop structure. For example, a cohort could focus on selected issues, including, say, the assessment tasks, and once they are determined, the next cohort's contribution to assessment could be on the assessment criteria, the next could discuss the timing of the assessment tasks and so on. Overall, this approach ensures that our teaching targets student needs and expectations; this in turn engages the class as a whole in negotiated subject development and co-creation of content and delivery.

A point of great interest is that the students really rose to the challenge of wanting to make the subject as good as it could be for the next cohort. They appreciated their unique positioning within the overall context, and they appreciated being given the opportunity to contribute:

I feel envious of the next lot, because they are going to have a much better subject. (u-2014)

This level of engagement and willingness to contribute should not be underestimated in terms of what it can offer.

While the findings made in relation to this project are promising, much work still needs to be undertaken. Many students felt that sitting down and attempting to genuinely co-create knowledge with their lecturer was a valuable and rewarding experience, and that this method could present a valuable opportunity for both lecturers and students. Some of the important suggestions from these findings include:

- o Moving away from "top down" to a student-centred approach;
- Lecturers gaining a more thorough understanding of how students learn and the particular needs of each cohort; and
- Working closely with students, listening carefully to their feedback and engaging them in making changes in the learning experience.

It is expected that the next phase of this project will see further advancements in the understanding of knowledge and curriculum co-creation as a tool for student engagement. It is also expected that some of the caveats presented here will be addressed in its subsequent delivery. Meanwhile, these findings suggest that this method can improve student engagement and satisfaction. Overall more students completed this subject than in previous years, and student satisfaction remained high. It seems that most students, while initially a little daunted, enjoyed the ability to have more ownership over their learning. The academics learned as much as the students in the process of working together in subject co-creation, and we consider that we have found a powerful tool to engage diverse cohorts of students. Our primary outcome is that whenever we strive to improve our teaching, we should consider the benefits of engaging students in the dialogue.

References

- Abbott-Chapman, J, Braithwaite, J & Godfrey, J 2004, Promoting access, increasing opportunities for university education: a study of mature-aged students from disadvantaged regions (Higher education Innovation program 2004). Department of Education, Science and Training, Canberra.
- Azer, SA 2009, 'Interactions between students and tutor in problem-based learning: The significance of deep learning' *Kaohsiung Journal of Medical Sciences*, vol. 25, no. 5, pp. 240-249.
- Biggs, J & Tang, C 2011, *Teaching for quality learning at University*, Society for Research into Higher Education & Open University Press, Berkenshire, UK.
- Bovill, C, Morss, K & Bulley, C 2009, 'Should students participate in curriculum design? Discussion arising from a first-year curriculum design project and a literature review', *Pedagogic Research in Maximizing Education*, vol. 3, no. 2, pp. 17-26.
- Devlin, M 1996, 'Older and wiser?: A comparison of the learning and study strategies of matureage and younger teacher education students', *Higher Education Research and Development*, vol. 15, no. 1, pp. 51-60.
- Eglitis, DS 2010, 'Performing theory: Dramatic learning in the theory classroom', *Teaching Sociology*, vol. 38, no. 4, pp. 340-349.
- Ferris, J & Gerber, R (1996). Mature-age students' feelings of enjoying learning in a further education context. *European Journal of Psychology of Education*, vol. 11, no. 1, pp. 79-96.
- Fletcher, A 2005, Meaningful student involvement guide to students as partners in school change, SoundOut.org in partnership with Human Links Foundation, viewed 22 October 2018, http://www.soundout.org/MSIGuide.pdf>.
- Fletcher, A 2008, 'The architecture of ownership', *Educational Leadership (online content)*, vol. 66, no. 3, pp. 5-8.

- Fogarty, GJ & Taylor, JA 1997, 'Learning Styles among mature-age students: some comments on the approaches to studying inventory (ASI-S)', *Higher Education Research & Development*, vol. 16, no. 3, pp. 321-330.
- Forrester, M 2012, 'Evaluation research', in M Gray, J Midgley & SA Webb (eds), *The SAGE Handbook of Social Work*, Sage, UK, pp. 440-453.
- Fraser, S & Bosanquet, A 2006, 'The curriculum? That's just a unit outline, isn't it?', *Studies in Higher Education*, vol. 31, no. 3, pp. 269-284.
- Heath, S, Books, R, Ireland, E & Cleaver, E 2009, Researching Young People's Lives, Sage Publications, London.
- Martin, D 2016, 'Alignment of theory and practice: A cycle of researching, teaching, and learning', *International Journal of Arts and Commerce*, vol. 5, no. 1, pp. 1-13.
- Martin, DL 2012, 'Rich assessment in first-year mathematics education', *International Journal of Pedagogies and Learning*, vol. 7, no. 1, pp. 62-72.
- Meyers, NM & Nulty, DD 2009, 'How to use (five) curriculum design principles to align authentic learning environments, assessments, students' approaches to thinking and learning outcomes', *Assessment and evaluation in higher education*, vol. 34, no. 5, pp. 565-577.
- Mowles, C, Stacey, R & Griffin, D 2008, 'What contribution can insights from the complexity sciences make to the theory and practice of development management?', *Journal of International Development*, vol. 20, no 6, pp. 804-820.
- Pedersen, DE 2010, 'Active and collaborative learning in an undergraduate sociological theory course', *Teaching Sociology*, vol. 38, no. 3, pp. 197-206.
- Stacey, RD 2007, Strategic management and organisational dynamics: The challenge of complexity to ways of thinking about organisations, Pearson Education, London.
- Stone, C & O'Shea, SE 2013, 'Time, money, leisure and guilt the gendered challenges of higher education for mature-age students', *Australian Journal of Adult Learning*, vol. 53, no. 1, pp. 95-116.
- Stone, C 2008, 'Listening to individual voices and stories the mature-age student experience', *Australian Journal of Adult Learning*, vol. 48, no. 2. pp. 263-290.
- Thomas, G, Martin, D & Pleasants, K 2011, 'Using self- and peer-assessment to enhance preservice teachers' future-learning in higher education', *Journal of University Teaching and Learning Practice*, vol. 8, no. 1, pp. 1-17.
- Trencher, G, Terada, T & Yarmine, M 2015, 'Student participation in the co-creation of knowledge and social experiments for advancing sustainability: experiences from the University of Tokyo', *Current opinion in environmental sustainability*, vol. 16, pp. 56-63.
- Trigwell, K, Prosser, M & Waterhouse, F 1999, 'Relations between teachers' approaches to teaching and students' approaches to learning', *Higher Education*, vol. 37, no. 2, pp. 57-70.
- Van Auken, P 2012, 'Maybe it's both of us: Engagement and learning', *Teaching Sociology*, vol. 41, no. 2, pp. 207-215.
- Walters, M 2010, 'The mature students' three R's', *British Journal of Guidance and Counselling*, vol. 28 no. 2, pp. 267-278.
- Warren, D 2002, 'Curriculum design in a context of widening participation in higher education', *Arts and Humanities in Higher Education*, vol. 1, no. 1, pp. 85-99.